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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/353,998 07/15/1999 SUSUMU SENSYU SONY-P9817 4457

22850 7590 03/25/2003

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1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

SHAH, NILESH R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2131

DATE MAILED: 03/25/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

901

Office Action Summary

Application No.

09/353,998

Applicant(s)

SENSYU, SUSUMU

Examiner

Nilesh R Shah

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on Aug 15 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim 3 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should relate to should refer to other claims in the alternative only. See MPEP § 608.01(n).

Claim 7 is objected to because of the following informalities: On page 26 'ore' should be charged to 'or'. Appropriate correction is required.

The "LDC" acronym is defined in two different ways. On page 4 LDC is defined as a long distance code and on page 6 LDC is defined as large code distance. It is unclear which definition it to be used in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al (4,949,326) 'Optical information recording and reproducing system using optical disk having an error corrections function and further in view of Howe (6,112,324) 'Direct access compact disc, writing and reading method and device for same.'

As per claims 1-3 Takagi teaches the use of a recording an optical disk system to produce an optical disk with different sectors and error correction. Takagi recording system produces a disk with a physical and logical sector (col 9 lines 37-46). Both the physical and logical sectors are capable of performing error correction (col 9 lines 15-30). Finally Takagi teaches that the different sectors can either be in the same block or in different blocks (8 lines 13- 39). The reason Takagi has the sectors in the same block or in different blocks is because the cost associated with the system can be different based on how the blocks are set up (col 8, lines 30 – 39). Takagi does not give the details of the content of different sectors.

Howe talks in detail about two types of sectors, physical and logical sectors. Howe describes the use of these two sectors when reading/writing to a compact disc or optical disc. Since ID information is not defined its broadest definition will be use. ID information is defined as information that deals with the ID. Howe teaches that the physical (channel) sector had information that deals with the ID (col 25 lines 5-11, col 13 lines 6-54) The boot record (ID) can be written to this sector. Since user data is not defined its broadest definition will be use. User data is defined as information that deals with the user. Next Howe teaches the content of the logical sector. Howe teaches that the logical sector may contain information that is defined by the user (user data) and control information (col 20, lines 38-67). The user is allowed to freely define what information is to be put into this area thus making it user data (col 20 lines 53-59). The control information that Howe teaches is error detection coding, which is used to ensure the highest reliability and the sector ID bytes (col 20 lines 59-67, col 21 lines 1-17). The sector ID byte reads on the inherent control information as described in claim 5 and 6. It would be obvious to one skilled in the art to add the details teaching of Howe to better describe the use of each

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sector. Howe teaches that if there is no sector structure it is difficult to provide sufficient interleaving length and errors corrected cannot take place (col 1 lines 33-50). With the lack of error correction accurate data reproduction becomes very different (col 1 lines 33-50). Claims 1-4 are rejected.

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi and Howe as applied to claim 1 above, and further in view of Sako et al (5,966,359) 'Data recording/reproducing apparatus and method corresponding to a plurality of data formats and data recording medium'.

As per claim 4, Takagi and Howe teach the use of different sectors and different information stored in different blocks. Takagi and Howe also teach that the different blocks of code can use error correction. See claim 1 rejection. Takagi and Howe do not teach the use of a error correction code that is long.

Sako teaches the use of an error correction code that is long. The "LDC" acronym is defined as long distance code. Sako teaches the use of the error correction code including the use of the long distance code (col 8 lines 27-31). The LDC error correction code is in the same direction as the user data code (fig 8). It would be obvious to one skilled in the art to add the LDC error correction to Takagi and Howe to ensure that the highest integrity of data is maintained. Claim 4 is rejected.

As per claims 5 - 7, Takagi and Howe teach the use of different sectors and different information stored in different blocks. Takagi and Howe also teach that the different blocks of code can use error correction. See claim 1 rejection. Takagi and Howe do not teach the use of a error correction code that is long.

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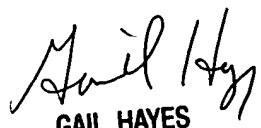
Sako teaches the use of an error correction code that is long. The "LDC" acronym is defined as long distance code. Sako teaches the use of the error correction code including the use of the long distance code (col 8 lines 27-31). The LDC error correction code is in the same direction as the user data code (fig 8). Saka also teaches the use of encoding/decoding the infoamtion. (col 8-10). It would be obvious to one skilled in the art to add the LDC error correction to Takagi and Howe to ensure that the highest integrity of data is maintained. Also it would be obvious to one skilled in the art to encrypt and decrypt the data to ensure its integrity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nilesh R Shah whose telephone number is 703-305-8105. The examiner can normally be reached on Monday-Friday 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gail Hayes can be reached on 703-305-9711. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-0040 for regular communications. .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

NS
March 19, 2003


GAIL HAYES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100